



Future support for low carbon heat consultation GMB Union submission

Introduction

This submission is made on behalf of GMB Union, which represents workers in the energy sector and is the largest union in the gas industry. As a general union, GMB also represents workers the energy sector's manufacturing and construction supply chains. All our members are energy consumers and billpayers.

GMB believes that biomethane production, as supported through the Renewable Heat Incentive (RHI), can play an important role in greening the UK's gas supply. The volume of biomethane injected into the gas grid increased from 980 GWh in 2015 to 5,564 GWh in 2019.¹ This rise in production, which was driven at least in part by consumers' preference for gas low-carbon heating solutions over electric alternatives,² has reduced the UK's import dependency and helped to develop the domestic biomethane industry.

Despite this growth, biomethane still accounts for less than 1 per cent of gas supply, and significant growth over the coming years is required if biomethane produced through anaerobic digestion's estimated limit of 5 per cent of supply is to be achieved.³ Additional green gas could be generated through the production of synthetic natural gas (bioSNG), and through the introduction of hydrogen into the National Transmission System (initially on a blended basis).

¹ BEIS, Natural gas production and supply monthly statistics (ET 4.2), published 26 June 2020 <https://www.gov.uk/government/statistics/gas-section-4-energy-trends>

² BEIS / Frontier Economics, RHI Evaluation: Synthesis, September 2017 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642103/RHI_evaluation_synthesis_-_2017.pdf

³ Committee on Climate Change, Next steps for UK heat policy, October 2016, p. 9 <https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf>

The UK has a strategic choice ahead between a predominantly electrified approach to the decarbonisation of heating, or a plan that utilises the skills of the existing gas workforce and the National Transmission System. GMB believes that Government policy should seek to continue to support green gas production, without prejudicing that strategic choice.

Proposed changes to the RHI scheme

We welcome the recognition that previous iterations of the scheme have not adequately supported the development of biomethane at scale. We support the proposed raising of the tier 1 threshold, and the proposed introduction of a third tier.

However, we are concerned about the technological restrictions that the Department is proposing to apply. In our view, the scheme should include mechanisms for supporting the development of the UK's nascent hydrogen and bio synthetic natural gas (bioSNG) industries. We are further concerned that, despite the Department's stated commitment to technological neutrality and market outcomes, it is in effect 'picking winners' by promoting almost exclusively the deployment of heat pumps over the lifetime of the proposed scheme. We would encourage the Department to adopt an approach to RHI reform that is integrated with its wider forthcoming policy statements on energy.

GMB believes that the scope of the proposed scheme should be amended to include hydrogen or bioSNG within the short term. Proposals for the domestic production of bioSNG are advanced, ITM Power is opening an electrolyser plant in Sheffield this year, and Equinor recently announced plans to build a large 'blue' steam methane reforming hydrogen production plant in Hull. These are technologies that are well understood in continental Europe but have not received support for development in the UK. An early positive commitment to supporting the development of these industries on an at least comparable basis to heat pumps could help to secure further investment. Unlike biomethane plants, bioSNG plants could be readily converted to hydrogen production in the future.

Consumers have voted with their heat under previous versions of the RHI and expressed a clear preference for boiler variants, in part because they are ‘seen as more familiar technology / similar to existing systems’ compared to heat pumps.⁴ It is therefore concerning that the Department is proposing in effect to mandate heat pump installation where those installations are supported by the RHI, with very limited exemptions for biomass boilers (which are modelled to account for just 2.8 per cent of deployments). This approach is neither ‘technology-neutral’ nor based on ‘market-based mechanisms.’

The difficulties of mass heat pump installation are well understood, including: the difficulties of matching models to buildings, to inefficiency under non-ideal conditions and in industrial settings, the cost of installation (of which only 40 per cent would be met through the Department’s proposed grant), the lack of the trained workforce required to deliver an installation programme at scale,⁵ and the additional strain that heat pump deployment would place on the electricity grid (it is estimated that a 20 per cent increase in heat pump penetration would lead to a 14.3 per cent increase in peak demand).⁶

For these reasons, in addition to consumer resistance, GMB believes that while heat pumps have a role to play in heating some off-grid properties, they do not represent the best technical solution to the question of how to decarbonise household heating. A ‘dash for heat pumps’ also risks dislocating large numbers of skilled gas industry workers. Green gas-based solutions offer the best utilisation of the sunk costs invested in the National Transmission System and of the skills of the established workforce.

A number of relevant strategic documents on the future of energy are forthcoming, including the Energy White Paper, the Heat and Buildings Strategy, the Treasury’s review of the costs of meeting the UK’s net-zero target and,

⁴ BEIS / Frontier Economics, op cit., p. 10.

⁵ CCC, Net Zero – The UK’s contribution to stopping global warming, May 2019, p. 176 <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

⁶ J. Love et al., The addition of heat pump electricity load profiles to GB electricity demand: Evidence from a heat pump field trial, Applied Energy, 204 (2017), pages 332–342.

reportedly, a national strategy for hydrogen.⁷ An almost exclusive focus on heat pumps risks prejudicing the decisions that the Government is due to make, and GMB believes that BEIS should revise its proposals if they are overtaken by the content of wider energy strategies.

The consultation document states an interest in the use of Contracts for Difference auctions as a mechanism for supporting future green gas developments. GMB would oppose any wider adoption of CfD mechanisms in their unreformed state. In the offshore wind sector, successive allocation rounds have failed to secure adequate investment in jobs in the UK as tier one contractors have preferred to channel orders through their international supply chains.⁸ If CfDs were adopted without changes then it is likely that the UK will not develop the strong domestic alternative gas industries needed to power the economic recovery.

Conclusion

GMB welcomes continued support for green gas generation.

However, we are concerned by the exclusion of hydrogen and bioSNG generation models from the scheme. The mandating of heat pump installation for domestic RHI users (with limited exemptions for biomass boilers) is a further cause for concern, which risks committing to a flawed approach to the decarbonisation of home heating, and could prejudice the wider strategic decision that the Government has yet to take on whether it pursues the decarbonisation of heat through electrification or green gas routes.

We urge the Department to reconsider its approach, and we would encourage further engagement between policymakers and the gas industry's workforce on these issues.

⁷ BBC News, Is the hydrogen tech 'revolution' hope or hype?. 01 July 2020

<https://www.bbc.co.uk/news/science-environment-53238512>

⁸ See STUC, Broken Promises and Offshored Jobs: STUC report on employment in the low-carbon and renewable energy economy, 2019

http://www.stuc.org.uk/files/Policy/Research_Briefings/Broken%20promises%20and%20offshored%20jobs%20report.pdf